

VAYNBERG, Mikhail Solomonovich, kand.tekhn.nauk. Prinimali uchastiye:
LOMOFIKOV, G.P., inzh.; VINOGRADOV, V.Ya.. SHCHEGLOV, K.A.,
red.; PANCHENKO, M.F., red.izd-vs; LELYUKHIN, A.A., tekhn.red.

[Planning of general schemes for city sanitation] Proektirovanie
general'nykh skhem sanitarnoi ochistki gorodov. Moskva, Izd-vo
M-va kommun.khoz.RSFSR, 1960. 142 p. (MIRA 13:7)
(Sanitary engineering)

SHCHEGLOV, K.A.

Developments in the water-supply system of the capital. Gor.
khoz.Mosk. 34 no.1:21-23 Ja '60. (MIRA 13:5)

1. Glavnyy inzhener proyekta instituta "Mosvodokanalproekt".
(Moscow--Water supply)

SOV-128-58-9-14/16

AUTHOR: Shcheglov, K.M.

TITLE: The Results of the Competition for the Best Proposition on the Modernization of Casting Equipment (Itogi konkursa na luchsheye predlozheniye po modernizatsii liteynogo obrudovaniya)

PERIODICAL: Liteynoye proizvodstvo, 1958, Nr 9, pp 29-31 (USSR)

ABSTRACT: In 1957 the Casting Section in the Moscow District Board of the Scientific-Technical Society of the Machinebuilding Industry organized a competition for the improvement of casting equipment. First prize was awarded to I.A. Onufriyev from the plant "Stankolit" for the development of a machine for the grinding of molded edges and the facing of large and medium-sized castings. Second prize was awarded to S.A. Kazennov and his coworkers for the modernization of a machine for casting under pressure. In the press-molds (Figure 1) a vacuum is produced in which the casting is made. Two third prizes were awarded to I.T. Andreychenko and his coworkers for a device to produce a vacuum in pressure casting machines, and to L.L. Koblents and his coworkers for the

Card 1/2

SOV-128-58-2-14/16

The Results of the Competition for the Best Proposition on the Modernization of Casting Equipment

modernization of the blast apparatuses model 392 and 494
Fourth and fifth prizes were awarded for minor inventions
There are 4 diagrams.

1. Foundries--Equipment 2. Castings--Processing 3. Foundry
--Performance

Card 2/2

S/128/60/000/003/007/007
A105/A133

AUTHOR: Shcheglov, K. M., Candidate of Technical Sciences

TITLE: New developments in the mechanization and automation of production processes in the foundry industry

PERIODICAL: Liteynoye proizvodstvo, no. 3, 1960, 41-48

TEXT: In a competition of the Moskovskoye oblastno pravleniye nauchno-tekhnicheskogo obshchestva mashinostroitel'noy promyshlennosti (Moscow Oblast' Administration of the Scientific Technical Society of the Mechanical Engineering Industry) in 1958 quite a number of suggestions and improvements were made. The winners of First Prizes were: N. I. Larponov, Z. A. Dol'berg, N. V. Artsishevskaya, G. M. Kuznetsov, V. M. Popov, R. R. Lutts, M. A. Korotkina, V. D. Verbil'skiy, Yu. V. Protasov, V. F. Mitrofanov, N. M. Davydova, R. G. Yashchunskiy, A. V. Butuzov, F. F. Kalashnikov, Yu. G. Vorobeychuk, E. L. Miller, Yu. V. Apraksin, I. V. Ageyev, P. N. Aksenov, A. S. Yevseyev, B. V. Rabinovich, V. L. Lesnichenko, G. D. Kolikov, M. I. Rodimkin and Yu. A. Preobrazhenskiy. NIITAvtoprom in cooperation with the Moskovskiy avtozavod im. Likhacheva (Moscow Automobile Plant im. Likhachev) and the Moskovskiy avto-

Card 1/3

New developments in the...

S/128/60/000/003/007/007
A105/A133

mekhanicheskii institut (Moscow Automechanical Institute) designed an automated production line with a capacity of up to 900 molds per hour based on a sandblower developed by the NIITAvtoprom. Based on the paper of F. Kh. Averbukh a molding machine with power lift and conveyer has been designed. The authors N. N. Rubtsov, P. I. Polovinkin, N. P. Borodina, V. V. Zyskin and K. Torketoru received a Fifth Prize for the draft project of an automated molding-assembly-pouring line. M. I. Dubinskiy and S. S. Rudelev received a Third Prize for their project of a shake-out semi-automatic. The "Stankolit" Plant designed a new type of shake-out semi-automatic with conveyer. Based on the paper of S. S. Rudelev a trough-shaped sand conveyer was developed at the same plant. N. V. Shershakov, V. M. Popov, Yu. A. Klimov, Z. A. Dol'berg, Yu. G. Verobeychik, A. A. Zykov, V. L. Lesnichenko, D. G. Shumyatskiy, A. M. Kozzarev and Kesarev were awarded a Third Prize for their design of a coreblower with a capacity of 360 cores per hour. Based on papers of N. I. Rastimenin, A. F. Ivanov, A. F. Yakovenko, A. N. Agafonov and V. K. Savel'yev another coreblower has been developed. D. M. Litvin, N. N. Morozov, A. V. Lozovskiy, A. M. Ivanov, I. D. Chudnovskiy, Ye. G. Grishin, A. V. Gordeyeva, V. P. Ladetskaya and V. M. Orlov of the NIILITMash were awarded a Third Prize for their design of a rotary chill casting machine. Technical data of which

Card 2/3

S/128/60/000/003/007/007
A105/A133

New developments in the...

are given. V. M. Matveyev was awarded a Fifth Prize for a continuous casting machine of shaped parts with a capacity of 10,000 castings per hour. The authors N. I. Larionov, G. M. Kuznetsov, Yu. M. Spirin, Z. A. Dal'berg, A. V. Butuzov, N. A. Arkhipov, L. F. Chechekin, N. I. Davydova, Yu. V. Apraksin, I. I. Finger, A. M. Polevaya, V. D. Romanchikov, N. G. Intyakov, M. Barvenko, V. A. Trandofilova, I. V. Titov, A. I. Korotkov, and Yu. I. Krupchik were awarded a Fifth Prize for the AKΦ-2 (AKF-2) automatic for the fabrication of shell molds, described in the article of A. A. Dudnik and G. A. Ukhabin "Litye moye proizvodstvo", no. 5, 1959. A Fourth Prize was awarded to the authors Z. D. Dol'berg, I. V. Yefimov, Yu. M. Spirin, R. O. Pshennova, L. F. Chechekin, N. I. Larionov, A. V. Butuzov, M. N. Yefimov, I. B. Sokol, B. A. Pepelin, I. V. Rutkovskiy, M. N. Ivanova, A. A. Cherkashenko, Yu. L. Preobrazhenskiy, A. P. Lakuzo, A. P. Romashin, V. M. Boldyrev, V. V. Bykov, and I. I. Kol'tsov for their design of an automatic for the manufacture of low-melting patterns, having a productivity of 1,440 - 2,880 pattern members per shift. K. K. Kondakov, G. Z. Kogan, A. I. Koval'skiy, and B. M. Demkov were awarded a Fifth Prize for their design of a high-temperature air preheater for cupolas.

Card 3/3

SHCHEGLOV, L.; ALEKSEYEV, N.

Recommended technical specifications should protect quality.

Sov. torg. 36 no.11:18-19 N '62.

(MIRA 16:1)

(Pottery)

FARAFONOV, A.V., inzh.; SHCHEGLOV, L.A., inzh.

Modernized type LK-300M linear contactor. Vest. TSNII MPS
21 no.1:19-22 '62. (MIRA 15:2)

(Electric contactors)

KUZNETSOV, N.; SECHINGLOV, L. V.

The quality of chinaware and earthenware articles. Sov.torg.
no.10:27-29 0 '56. (MLBA 9:12)
(Pottery)

SICHEGLOV, L M.

.5(0)

PHASE I BOOK EXPLOITATION

SOV/2054

Kiselev, Vasilii Stepanovich, and Lev Mikhaylovich Sicheglov

Tovary silikatnyye, iz plasticheskikh mass i khimiko-moskatel'nyye (Silicate and Plastic Articles and Household Chemical Products) Moscow, Gostorgizdat, 1958.
320 p. Errata slip inserted. 10,000 copies printed.

Ed. (Title page): N. A. Arkhangel'skiy, Professor; Chief Reviewers: G. I. Kutyanin, Professor, and N. V. Bulgakov; Reviewers: G. P. Kalliga, Docent, N. I. Yegorkin, Professor, A. B. Davankov, Docent, and P. I. Novoderezhkin, Docent; Ed. (Inside book): G. A. Borisova; Tech. Ed.: D. M. Medrish.

PURPOSE: The book is intended as a textbook for students specializing in silicates. It can also serve as a reference book for chemists, engineers, and technicians concerned with the production of glass, ceramics, resins, and household chemicals such as cements, soaps, detergents, insecticides, and fungicides.

COVERAGE: Glass tableware is manufactured on a large scale in the following plants: Gus'-Khrustal'nyy zavod (Gus' Glassware Plant), Dyat'kovskiy khrustal'nyy zavod (Dyat'kovo Glassware Plant), and the "Krasnyy gigant" zavod, ("Krasnyy gigant" Plant). The Leningradskiy zavod (Leningrad Plant) has the largest experimental

Card 1/9 ----

Silicate and Plastic Articles (Cont.)

SOV/2054

laboratory for developing new varieties of glass, cut glass articles, new designs, etc. Large-scale manufacture of porcelain products is centered in the zavod im. gazety "Pravda" (Plant imeni gazety "Pravda"), Dmitrovskiy zavod (Dmitrovskiy Plant), zavod im. Lomonosova (Plant imeni Lomonosov), zavod im. Lenina (Plant imeni Lenin), and plants in Riga and Tashkent. The textbook was edited by Docent G. P. Kalliga (section "Silicate Products"), and Professor N. I. Yegorkin, Docent A. B. Davankov, and Docent P. I. Novoderzhkin (section "Plastic Materials"). Editing for the Experts' Committee was done by Professor G. I. Kutyanin and Professor N. V. Buljakov (Department of the Science of Industrial Commodities of VZIST). There are 52 Soviet references.

TABLE OF CONTENTS:

SECTION I. SILICATE PRODUCTS

(L. M. Shcheglov, Docent)

Introduction	3
Ch. 1. Glassware	7
Card 2/9	

SHCHEGLOV, L., kand.tekhn.nauk

Isn't it time to review technical conditions? Sov. torg. 35
no.12:35-36 D '61. (MIRA 14:11)

(Glassware)
(Pottery)

SHCHEGLOV, L.^M, kand.tekhn.nauk; ALEKSEYEV, N., kand.tekhn.nauk

Selection of china and faience goods. Sov.torg. 35 no.7:16-18
Jl '62. (MIRA 15:11)

(Pottery)

ABRAMOV, P.R.; ALEKSEYEV, N.S.; ARKHANGEL'SKIY, N.A., prof.
[deceased]; GUREVICH, E.S.; ZAYTSEV, V.G.; KEDRIN, Ye.A.;
MIRONOVA, L.V.; OSTANOVSKIY, T.S., dots.; PALLADOV, S.S.,
dots.; SERGEYEV, M.Ye.; TER-OVAKI'YAN, I.A.; TSEREVITINOV,
B.F.; SUCHEGLQV, L.M.; YAKOVLEV, A.I.; BORISOVA, G.A.,
red.; MEDRISH, D.M., tekhn. red.

[Study of manufactured goods; concise course] Товароведе-
ние промышленныkh товаров; kratkii kurs. [E7] P.R.Abramov
i dr. Izd.2., perer. Moskva, Gostorgizdat, 1963. 768 p.
(MIRA 16:11)

(Commercial products)

SHCHERBLOV, Leonid Leonidovich; ABRAMOV, A.L., red.

[On the way to technological progress] Po puti tekhnicheskogo progressa. Izdanie Sakhalinsk, Sakhalinskoe knizhnoe izd-vo, 1963. 26 p. (MIA 18:4)

SHCHEGLOV, M.

Life requires accounting. NTO 4 no.12:14-16 D '62. (MIRA 16:1)

1. Predsedatel' ekonomicheskogo soveta ryazanskogo zavoda "SAM".
(Ryazan--Calculating machines)

SHCHEGLOV, M.G. (Kuybyshev, Nekrasovskaya ul., d.20, kv.47)

Some characteristics of the course of a chronic suppuration
in a hypoplastic lung. Grud. khir. 1 no.5:70-75 S-0 '61.

(MIRA 15:3)

1. Iz kliniki fakul'tetskoy khirurgii (zav. - prof. S.L.
Libov) Kuybyshevskogo meditsinskogo institut (dir. D.A. Voronov).
(LUNGS--DISEASES)

SHCHERBOV, E.E., inzhener.

On Engineer E.E. Lazarev's article "Using ekotop" for ...
Energetik 5 no.7:1-31 ...
(Sailers)

SHCHEGLOV, M.K.

Methods for chemical descaling of boilers. V.d. i san. tekhn. no.6:
16-19 Je '59. (MIRA 12:8) .
(Boilers--Incrustations)

SHCHEGLOV, M.K.

Using the power "Ekotop". Energetik 8 no.2:38-39 F '60.
(MIRA 13:6)

(Boilers)

SHCHEGLOV, M.K.

Methods of cleaning external heating surfaces of boilers.
Energetik 8 no.7:36 J1 '60. (MIRA 13:8)
(Boilers--Cleaning)

NOVIK, P.S.; FISHBAGOV, M.M.

Experimental study of the marginal sharpness obtained with motion-
picture camera lenses. Izv. vuzov. fiz. 1963, 47 '62.

(MIRA 17:10)

SHCHEGLOV, M.P.

~~Shtsheglov~~, M. On some problems of summation by Poisson's method. Bull. Acad. Sci. URSS. Sér. Math. [Izvestia Akad. Nauk SSSR] 9, 423-428 (1945). (Russian. English summary)
 [In the original, the author's name was transliterated Chtheglov. The Russian spelling is Ščeglov.] If $\sum a_n x^n$ converges for $|x| < 1$, the limits of indetermination of the function $\sum a_n x^n$, as $x \rightarrow 1$, are contained between the limits of indetermination of the sequence of the partial sums of the series $\sum a_n$. If $a_n = o(1/n)$, the two segments of indetermination coincide [Littlewood, Proc. London Math. Soc. (2) 9, 434-448 (1911)]. The author gives examples illustrating situations when $a_n = O(1/n)$. A. Zygmund.

Source: Mathematical Reviews,

Vol. 8, No. 3

Shtshcheglov, M.

8

Shtshcheglov, M. On convergence and boundedness
Dirichlet's series. Bull. Acad. Sci. URSS. Sér. Math.
 [Izvestia Akad. Nauk SSSR] 9, 527-530 (1945). (Rus-
 sian. English summary)
 Typical result. Suppose that a Dirichlet series $\sum a_n e^{-\lambda_n t}$,
 with $\lambda_{n+1} = O(\lambda_n)$ converges for $t > 0$. Let $t_1 > \dots > t_m \rightarrow 0$,
 $t_m - t_{m+1} = O(t_{m+1})$, $a_n < o((\lambda_{n+1} - \lambda_n) \lambda_n^{-1})$. Then $f(t_m) \rightarrow 0$ im-
 plies $f(t) \rightarrow 0$ as $t \rightarrow +0$. A. Zygmund (Philadelphia, Pa.).

Source: Mathematical Reviews,

Vol 8, No. 3

[Handwritten signature]

SHCHETLOV, M. P.

С суммированием Fuassana. Matem. sb.. 12 (60) (1945) 41-52.

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A.G.,
Markushevich, I.I.,
Rashevskiy, P.K.
Moscow-Leningrad, 1948

SHCHEGLOV, M. P.

Source: Mathematical Reviews,

Vol 13 No. 1

See also: M. P. On the generalization of Tauber's theorem. (Russian) Mat. Sbornik N.S. 28(70), 245-282 (1951).

The author considers various generalizations of Tauberian theorems. Let $a_0 + a_1 + \dots$ be a given series and let $f(t) = \sum a_n e^{-nt}$ be its Abel means. Let $l_n > l_{n+1} \rightarrow 0$. If $l_n/l_{n+1} = O(1)$, then the conditions $f(l_n) \rightarrow S$ as $n \rightarrow \infty$ and $a_n = o(1/n)$ (even $a_n < o(1/n)$ will do) imply the convergence of $\sum a_n$ to S . However, 1) for every sequence $l_n > l_{n+1} \rightarrow 0$ such that $l_n/l_{n+1} \neq O(1)$ there is a series $\sum a_n$ with terms $o(1/n)$ such that $f(l_n)$ tends to a finite limit and yet $\sum a_n$ diverges. 2) Suppose that $a_n < o(1/n)$ and that $\sum a_n e^{-nt}$ converges for $t > 0$. Suppose also that $f(l_n) \rightarrow S$ where S is a finite number and l_n is a decreasing-to-zero sequence satisfying the following conditions: a) $\liminf q_n = r$, $\limsup q_n = R$, with $q_n = l_n/l_{n+1}$, $1 = r < R < \infty$; b) there is a subsequence $\{l_{n_k}\} \subset \{l_n\}$ for which

$$\liminf_{k \rightarrow \infty} l_{n_k}/l_{n_k+1} > 1, \quad \limsup_{k \rightarrow \infty} l_{n_k}/l_{n_k+1} < \infty;$$

c) $\lim q_n = 1$ for $m \rightarrow \infty$ and $m_s \leq m < m_{s+1}$ ($s=2, 4, \dots$). Then $\sum a_n$ converges to S . 4) Let l_n be any positive sequence satisfying $l_n/l_{n+1} > r$, where $r > r_0 = \frac{1}{2}(\sigma - 1 - \sigma^{-1})^{-1}$. Then there is a series $\sum a_n$ with terms $O(1/n)$ such that $f(l_n) \rightarrow 1$, and yet $\sum a_n$ diverges. The problem of whether the result holds for $r_0 = 1$ is formulated and left open. Let d_s and D_s be the limits of indetermination of the partial sums of $\sum a_n$, and d_s and D_s the limits of indetermination of the Abel means $f(t)$, for $t \rightarrow 0$. The author investigates in great detail various actual possibilities in the obvious relations $d_s \leq d_s \leq D_s \leq D_s$, under one of the following assumptions $a_n = o(1/n)$, $O(1/n)$, $O(\omega_n/n)$, where $\omega_n < \omega_{n+1} \rightarrow \infty$, $\omega_n = o(n)$. The results are too long to be given here.

A. Zygmund (Chicago, Ill.).

Mathematical Reviews
Vol. 14 No. 11
Dec. 1953
Analysis

8-10-54
LL

Štegllov, M. P. On subsequences of the arithmetic mean
sums of Cesàro. Doklady Akad Nauk SSSR (N.S.) 87, 4
517-520 (1952). (Russian)

with
2

Let d and D be the limits of indeterminacy of the arithmetic means σ_n of the partial sums of the series $\sum a_n$ and let d' and D' (not necessarily finite) denote the same for a subsequence σ_{n_m} , so that $d \leq d' \leq D' \leq D$. It is shown that $d = d'$ and $D = D'$ if $a_n = o(n^{-1})$ and $n_{m+1} = O(n_m)$ or if $a_n = o(n^{-1})$ and $n_{m+1} = n_m + o(n_m)$. The second in each pair of conditions cannot be weakened. It is remarked that, in view of the Hardy-Landau Tauberian theorem, if under either of the above sets of conditions σ_{n_m} converges to a finite limit s then $\sum a_n = s$.
G. Klein.

2

Mathematical Reviews
Vol. 14 No. 11
Dec. 1953
Analysis

Štegl'ov, M. P. Generalization of the Hardy-Landau-Vijayaraghavan theorem. Doklady Akad. Nauk SSSR (N.S.) 87, 697-700 (1952). (Russian)

Let d and D be the limits of indeterminacy of the partial sums of the numerical series $\sum a_n$ and let d' and D' be the same for their arithmetic means, so that

$$(1) \quad d \leq d' \leq D' \leq D.$$

The classical result of the title states that $d = D$ whenever $d' = D' = S$ (finite) if $a_n = O(n^{-1})$. This last condition can be replaced by $a_n < O(n^{-1})$ when S is finite but, as shown by Vijayaraghavan [J. London Math. Soc. 2, 215-222 (1927)], if $S = +\infty$ the weakest effective one-sided Tauberian condition is $a_n < O(n \log \log n)^{-1}$. Here the author considers the more general situation wherein d' and D' need not be equal or finite. In addition to all the above Tauberian conditions, those obtained by use of σ in place of O are studied to determine which of the possibilities (1) do and which cannot occur. For example if $a_n < O(n \log \log n)^{-1}$ then $d = d' \leq D' = D$ unless $D' = D = +\infty$ and $-\infty < d < d' < +\infty$, but if $a_n < \sigma(n \log \log n)^{-1}$ this alternative is excluded. Some of the results are the best of their kind. G. Klein.

Ščeglov, M. P. On a generalization of a theorem of Hardy-Littlewood. Ukrain. Mat. Žurnal 5, 299-303 (1953). (Russian)

Let us consider the set P of all non-negative sequences s_0, s_1, s_2, \dots and let

$$\phi(u) = u^{-1} \sum_{n=0}^{\infty} s_n e^{-nu}, \quad \sigma_n = (n+1)^{-1} \sum_{k=0}^n s_k$$

be their Abel and $(C, 1)$ means. Let

$$\limsup_{n \rightarrow \infty} \sigma_n = D, \quad \limsup_{u \rightarrow 0} \phi(u) = D'$$

It is a familiar fact that D and D' are either both finite or both infinite, and the classical proof of Hardy and Littlewood [Proc. London Math. Soc. (2) 13, 174-191 (1914)] shows that $D \leq D'$. Assuming that both D and D' are finite, the author proves that a) $\inf_P (D - D') = 0$; b) $\sup_P (D - D') = +\infty$; c) $\inf_P D/D' = 1$; d) $\sup_P D/D' = e$; e) $\sup_P (D + \alpha)/(D' + \alpha) = e$, for any finite positive α . Also, 1) if $\limsup s_n = D$, then $D' = D$; 2) there exist $\{s_n\} \in P$ such that $D = D' < \limsup s_n$.
A. Zygmund.

Mathematical Reviews
Vol. 15 No. 4
Apr. 1954
Analysis

8-24-54
LL

SHCHEGLOV, M. P.

0

000

✓ Sheglov, M. P. On bounded sequences. Doklady Akad. Nauk SSSR (N.S.) 90, 145-147 (1953). (Russian)

Let s_0, s_1, \dots be a real bounded sequence. Let $D_0 = \liminf s_n$ and $\bar{D}_0 = \limsup s_n$. Let $D_1 = \liminf \sigma_n$ and $\bar{D}_1 = \limsup \sigma_n$ where $\sigma_n = (s_0 + s_1 + \dots + s_n)/(n+1)$. Let $D_2 = \liminf \phi(u)$ and $\bar{D}_2 = \limsup \phi(u)$ where $u \rightarrow \infty$ and $\phi(u) = u^{-1} \sum_{i=0}^{\infty} s_i e^{-i/u}$. It is well known that $D_0 \leq D_1 \leq \bar{D}_1 \leq \bar{D}_0$. Some additional results, including the following, are given. If $\bar{D}_1 = \bar{D}_0$, then $D_2 = \bar{D}_2$. The number ϵ is the least constant

such that

$$(\bar{D}_1 - D_1) \leq \epsilon (\bar{D}_2 - D_2)$$

whenever s_n is bounded. R. P. Agnew (Ithaca, N. Y.).

RAW
KC

SHCHEGLOV, M. P.

499

✓ Shcheglov, M. P. On two theorems of Hardy-Littlewood.
Ukrain. Mat. Z. 7 (1955), 180-187. (Russian)

Let $a_0 + a_1 + a_2 + \dots$ be a series with real terms and partial sums $s_n = a_0 + a_1 + \dots + a_n$. Let $A(u) = \sum_{k=0}^{\infty} a_k e^{-ku}$ denote the Abel transform of $\sum a_n$. Let

$$d = \liminf_{n \rightarrow \infty} s_n, \quad d' = \liminf_{u \rightarrow \infty} A(u),$$

$$D' = \limsup_{u \rightarrow \infty} A(u), \quad D = \limsup_{n \rightarrow \infty} s_n.$$

1/2

It is a well known fact that these four numbers satisfy the inequality $d \leq d' \leq D' \leq D$. While the reviewer does not recall seeing the fact stated in print, it is possible to construct a series for which d, d', D', D are any pre-assigned numbers, finite or infinite, that satisfy this inequality. If, however, T is a Tauberian condition such that each series satisfying T and evaluable A is convergent, then we can assert that if $\sum a_n$ is a series satisfying

(OVER)

Segler, M. P.

Then the relations $d < d' = D'$ and $d' = D' < D$ are impossible because if $d' = D'$, then $d = d' = D' = D$. In a previous paper the author [Mat. Sb. N.S. 28(70) (1951), 245-282; MR 13, 28] made an exhaustive study of the relations among d , d' , D' , and D that are possible when $\sum a_n$ satisfies an order Tauberian condition $na_n = o(1)$ or $na_n = O(1)$ or $na_n < o(1)$ or $na_n < O(1)$. The present paper treats the same problem with $\sum a_n$ satisfying a Tauberian gap condition, that is, $a_n = 0$ except when $n = n_1, n_2, n_3, \dots$, where n_k is a rapidly increasing sequence of integers.
R. P. Agnew (Ithaca, N.Y.).

2/2

Raw

SHCHEGLOV, M.P.

Vijayarackavan's generalization of Tauberian theorems. Ukr. mat. zhur.
7 no.3:333-338 '55. (MIRA 9:2)

(Series)

USSR/ Mathematics - Divergent series

Card 1/1 Pub. 22 - 12/53

Authors : Shcheglov, M. P.

Title : Solution of some extremal problems of the theory of divergent series

Periodical : Dok. AN SSSR 102/4, 703-704, Jun 1, 1955

Abstract : A method for the solution of some maximum-minimum problems of the theory of divergent series W and W_+ is described. The differences are considered (of functions) r, R, p, P of the W and $r_+, R_+, p_+,$ and P_+ of the W_+ , where the W and W_+ are divergent series satisfying certain conditions imposed upon them. Three USSR references (1939-1951).

Institution : Moscow Physico-Technical Institute

Presented by : Academician A. N. Kolmogorov, February 16, 1955

LIDSKIY, Viktor Borisovich; OVSYANNIKOV, Lev Vasil'yevich; TILAYKOV, Anatoliy Nikolayevich; SHABUNIN, Mikhail Ivanovich. Primalni uchastie: ABRAMOV, A.A.; BOCHKE, I.A.; YEVGRAFOV, M.A.; ZYKOV, A.A.; KARABEGOV, V.I.; KARIMOVA, Kh.Kh.; KUDRYAVTSEV, L.D.; KUTASOV, A.D.; SHURA-BURA, M.R.; SHCHEGLOV, M.P. SOLODKOV, V.A., red.; KRYUCHKOVA, V.N., tekhn.red.

[Problems in elementary mathematics] Zadachi po elementarnoi matematike. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1960. 463 p. (MIRA 14:1)

(Mathematics--Problems, exercises, etc.)

2082

8/08/81/000/005/053
R00154873

9,9822

AUTHORS: A. I. Kovalev, N. I. Kholodkov, V. I.

TITLE: An investigation, using the waveguide method, of radio wave depolarization by dielectric particles

PERIODICAL: Referativnyi zhurnal. Fizika, no. 6, 1961, 393, abstract 6Zh525
("Zh. zap. Tomskiy univ.", 1960, no. 36, 82-86)

TEXT: The authors investigate depolarization of radio waves by dielectric particles, in particular by material gel particles. The rotational spheroid was adopted as a model of a scatterer. The method of wave bridge with a double T-joint was employed for measuring depolarization coefficient. Measurements were carried out at the 3.2-cm wavelength. Rain droplets were imitated by spheroids of "tokond" ($\epsilon_2 = 80$) and water droplets, ball particles and icicles by an artificial dielectric with $\epsilon_2 = 3.3$ (mixture of paraffin with aluminum powder). The dependence of depolarization coefficient on ϵ and scatterer shape for artificial dielectrics was also measured. The authors arrived at the following conclusions: 1) If scatterer dimensions are sufficiently small in comparison with the wavelength, the depolarization can be performed in the same way as for an electrical field. 2) De-

S/058/62/000/005/112/119
A061/A101

24 200 0

AUTHOR:

Shcheglov, N. G.

TITLE:

Polarization structure of a field reflected from a circular cylinder and a grid

PERIODICAL:

Referativnyy zhurnal, Fizika, no. 5, 1962, 24, abstract 5Zh179
("Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te", 1960, no. 39, 58 - 65)

TEXT:

The problem of re-emission of a plane elliptically polarized wave by a circular cylinder, when the ellipse of polarization is arbitrarily oriented with respect to the cylinder axis, has been studied. The coefficient of ellipticity, that of the wave re-emitted in the opposite direction, and the angle formed by the major axis of the ellipse and the cylinder axis have been measured. The additional phase shift between the mutually-orthogonal components of the re-emitted field is calculated. An experimental diagram is given to illustrate the coefficient of ellipticity as a function of the cylinder radius. The field reflected from the grid of metal cylinders is found for the cases in which the primary

Card 1/2

Card

SOKOL'SKIY, D.V.; SHCHEGLOV, N.I.

Hydrogenation of nitrobenzene on Raney nickel with platinum as promoter. Izv.AN Kazakh.SSR Ser.khim.no.2:76-89 '48. (MLRA 9:7)
(Hydrogenation) (Benzene) (Catalysts, Nickel)

SHCHEGLOV, N.I.; SOKOL'SKIY, D.V.

Platinum promoted catalytic hydrogenation of liqued styrene on a
nickel skeleton catalyst. Izv.AN Kazakh.SSR.Ser.khim. no.4:40-45
'51. (MLR 9:5)

(Styrene) (Hydrogenation)

SHCHEGLOV, N.I.

Chem

✓ Hydrogenation of 3-methyl-1-hexen-3-ol. N. I. Shche-
glov and D. V. Sokol'ski. *Izv. Akad. Nauk Kazakh*
S.S.R. No. 120, Ser. Khim. No. 5, 34-8(1953).—H was
passed through a soln. of $\text{CH}_3\text{CH}(\text{Me})(\text{C}_4\text{H}_9)\text{OH}$ in 20
ml. alc. contg. 0.56 g. Raney Ni catalyst plus H_2PtCl_6 as
promoter, in an app. described previously, (*ibid.* 2, 78
(1948)), at 0° and 25°. The hydrogenation is a zero-order
reaction at 0°, but is a first-order reaction at 25°. At 25°
the reaction rate is directly proportional to the Pt added
(0.001–0.005 g.); at 0° the rate is almost independent of the
Pt concn. The activation energy of the reaction varies with
amt. of Pt on the surface of the Ni; for pure Ni, it is $7000 \pm$
 1000 cal./mole; for 0.0049 g. Pt on 0.56 g. Ni, $11,000 \pm$
 1000 cal./mole.

Malcolm Anderson

fm

ess

SHCHEGLOV, N.I.; SOKOL'SKIY, D.V.

Hydrogenation of 2-methyl-4-methoxy-2,3-butene. Izv. AN Kazakh.
SSR Ser.khim. no.5:39-44 '53. (MLBA 9:5)
(Hydrogenation) (Butene)

Chemical Abstracts

Vol. 55, 1954

Organic and Textile Chemistry

2
Hydrogenation of cottonseed oil in the presence of Raney nickel catalyst promoted by platinum and palladium. N. I. Shegolev and D. V. Sokol'skiy. *Izvest. Akad. Nauk Kazakh. S.S.R. No. 123, Ser. Khim. No. 7, 30-8(1953)*; cf. preceding abstr.—With unpromoted Raney-type Ni catalyst the cottonseed oil is hydrogenated best at 60-80°. Higher temp. lowers the apparent activation energy: at 25-40° it is 10,000-11,000 cal./mole; at 80-100° it is 2000-3000 cal./mole. On promotion with Pt the reaction rate rises with the amount of promoter up to 0.009 g. per 0.56 g. Ni; such promotion raises the temp. optimum to 80-100°. Ni promoted with Pd is somewhat more active than that with Pt, and promotion with Pd lowers the optimum temp. to 40-60°. Addn. of Pt increases the strength of bonding of H to the catalyst surface, while Pd has an opposite effect.
G. M. Kosolapoff

SHCHEGLOV, N.I.; SOKOL'SKIY, D.V.

Hydrogenation of cottonseed oil in the presence of a nickel-skeletal catalyst, with platinum and palladium as promoters.
Izv. AN Kazakh. SSR no. 123:30-38 '53. (MLRA 7:3)
(Cottonseed oil) (Hydrogenation) (Catalysts)

SHCHEGLOV, N.I.; SOKOL'SKIY, D.V.

Hydrogenation of actylene to ethylene. Trudy Inst.khim. nauk AN
Kazakh. SSR 2:150-157 '58. (MIRA 12:2)
(Hydrogenation) (Acetylene) (Ethylene)

PHASE I BOOK EXPLOITATION SOV/3537

Akademii nauk Kazakhskoy SSR. Institut khimicheskikh nauk

Truly, t. 5 (Transactions of the Institute of Chemical Sciences, Kazakh SSR, Academy of Sciences, Vol 5) Alma-Ata, Izd-vo Akademii nauk Kazakhskoy SSR, 1959. 154 p. 1,000 copies printed.

Ed.: M.D. Zhukova; Tech. Ed.: Z.P. Borokina; Editorial Board of Series: D.V. Sokol'skiy (Resp. Ed.), V.G. Gutsalyuk, and B.V. Suvorov (Resp. Secretary).

PURPOSE: This collection of articles is intended for personnel of scientific research laboratories, laboratories of industrial enterprises, and faculty members of schools of higher education.

COVERPAGE: The collection reviews problems of liquid-phase catalytic hydrogenation to upgrade and reactivate various products. Hydrogenation of unsaturated bonds of various types, adsorption of hydrogen on different catalysts, chromatographic separation of mixtures, and the effect of halogen salts of alkali metals on the rate of hydrogenation reactions promoted by various skeleton catalysts are described. Conditions of catalytic hydrogenation of natural fat, sunflower oil, and such synthetic products as esters of high-molecular fatty acids are set out. Dehydration of the butane fraction carried out in combination with isomerization is analyzed. Principles of selecting catalysts and regeneration of them are reviewed and the formation of adsorption potentials on metal catalysts is explained. Each article presents conclusions drawn on the basis of experimental findings. References accompany most of the articles.

Shonina, V.P., R.M. Khasanova, and D.V. Sokol'skiy. Chromatographic Separation of Mixtures of Nitrobenzene-Aniline Products 28

Golejova, L.S., and D.V. Sokol'skiy. Study of Hydrogenation Reactions of Natural Fats and Their Simplest Synthetic Analogues, the Esters of High-Molecular-Fatty Acids 36

Oolodova, L.S., D.V. Sokol'skiy, and Ye.A. Podlyasheva. Kinetics and Mechanism of Hydrogenation of Sunflower Oil in Solution 44

Luk'yankin, A.K. Problem of Formation of Adsorption Potentials on Metal Catalysts 50

Kerzhakov, A.L., and D.V. Sokol'skiy. Potentiometric Study of Hydrogenation of Benzaldehyde Over Skeleton Pd/Ni Catalysts 56

Buvalkina, L.A., G.V. Pavlova, Z.P. Prussakova, and D.V. Sokol'skiy. Dehydroisomerization of the Commercial Fraction of n-Butane Over Oxide Catalysts 64

Shonina, V.P., R.M. Vlasova, and D.V. Sokol'skiy. Catalytic Reduction of Aromatic Nitro Compounds. Part IX 72

Glaz, R.M. [Moskovskiy institut tekhnicheskoy tekhnologii imeni M.V. Lomonosova-Moscow Institute of Chemical Technology imeni M.V. Lomonosov]. Some Principles of Selective Catalysts for Liquid-Phase Hydration of Acetylene to Acetaldehyde 81

Shechelov, N.I., and D.V. Sokol'skiy. Some Methods of Reactivating the Skeleton Nickel Catalyst 92

Shechelov, N.I., and D.V. Sokol'skiy. Hydrogenation of Acetylene in the Liquid Phase 97

Sokol'skiy, D.V., and L.P. Dunina. Hydrogenation of a Sodium Salt of Propionic Acid Over Platinum 110

Sokol'skiy, A.M., and D.V. Sokol'skiy. Hydrogenation of Cinnamic Alcohol (Styrene) 110

Card 4/5

SHCHEGLOV, N.I.; SOKOL'SKIY, D.V.

Some methods used for "revivifying" nickel skeletal catalysts.
Trudy Inst.khim.nauk AN Kazakh.SSR 5:92-96 '59. (MIRA 13:6)
(Catalysts, Nickel)

S/081/61/000/005/008/024
B110/B205

AUTHORS: Shoheglov, N. I., Sokol'skiy, D. V.

TITLE: Hydrogenation of acetylene in the liquid phase

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1961, 417, abstract
5A13 (5L13) ("Tr. In-ta khim. nauk AN Kaz. SSR", 1959, 5,
97-104)

TEXT: A study has been made of the hydrogenation of C_2H_2 in solutions of 0.1 n NaOH and 96 % alcohol by means of the (KT) (KT) Pd catalyst on $CaCO_3$ or silica gel carrier at 2-80°C, the ratios $C_2H_2:H_2 = 1:1; 1:2; 1:3$, and flow rates of 7-60 ml/min. In the presence of Pd/ $CaCO_3$, an increase of temperature and the use of alcohol as a solvent increase the yield of polymerization products and lower that of C_2H_4 . Addition of 5 % of Pb reduces the activity of KT and changes its degree of selectivity. Increase of the H_2 concentration raises the yield of C_2H_4 which is not affected by

Card 1/2

SHCHEGLOV, N.I.; SOKOL'SKIY, D.V.; ISHCHENKO, A.A.

Promoting a skeletal nickel catalyst. Report No. 1: Hydrogenation
of m-nitrophenol. Izv. AN Kazakh. SSR. Ser. khim. no. 2:81-88 '60.
(MIRA 14:5)

(Catalysts, Nickel) (Phenol) (Hydrogenation)

SHCHEGLOV, N.I.; SOKOL'SKIY, D.V.; ISHCHEENKO, A.A.

Promoting a skeletal nickel catalyst. Report No. 2: Hydrogenation
of methyl ethyl ketone. Izv. AN Kazakh. SSR Ser. khim. no. 2:89-
92 '60. (MIRA 14:5)

(Ketone) (Hydrogenation) (Catalysts, Nickel)

SOKOL'SKAYA, A.M.; MEYEROVICH, A.D.; SHCHEGLOV, N.I.; SOKOL'SKIY, D.V.

Hydrogenation of nitriles. Izv. AN Kazakh. SSR Ser. khim.
no. 2:93-100 '60. (MIRA 14:5)
(Nitriles) (Hydrogenation)

SHCHEGLOV, N.I.; SOKOL'SKIY, D.V.; ISHCHEENKO, A.A.

Addition of promoters to skeletal nickel catalysts. Hydrogenation
of furfurole. Trudy Inst.khim.nauk AN Kazakh.SSR 7:33-37 '61.
(MIRA 15:8)

(Furaldehyde) (Hydrogenation) (Catalysts)

SHCHEGLOV, N.I.; SOKOL'SKIY, D.V.; ISHCENKO, A.A.

Hydrogenation of terephthalic acid dinitrile. Izv.AN Kazakh. SSR.
Ser.khim. no.1:91-94 '61. (MIRA 16:7)
(Terephthalic acid) (Nitriles) (Hydrogenation)

SHKREBYA, N.I.; BOROL'SKIY, G.V.

Effect of certain factors on the rate and completeness of hydrogenation of aromatic nitriles. Trudy Inst. khim. nauk AN Kazakh. Ser. 11:48-55 '64. (MIRA 17:11)

SHCHEGLOV, N.K.

Signal of card can filling connected with the self stopping of
the doffer roll. Obm.tekh.opyt. [MIP] no.16:11-12 '56.
(Carding machines) (MIRA 11:11)

S/123/59/000/008/004/043
A004/A002

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1959, No. 8, p. 15,
28697

AUTHOR: Shcheglov, N. N.

TITLE: The Endurance Limit and Plastic Deformations of Steels in Some
Cases of Joint Bending and Torsion Effects

PERIODICAL: Tr. Tallinsk. politekhn. in-ta, 1957, A, No. 113, p. 34

TEXT: Smooth standard specimens of 7.62 mm diameter of the steel grades
10, 45, and 40X (40Kh) were subjected to fatigue tests under the joint effect
of cyclic symmetric circular bending and static torsion (case A) and symmetric
torsion and static bending (case B). Based on the test results, which were
compared to the test results with the same kinds of cyclic loading without
static stress, it was found: in case A for grade 10 steel an increase of the
endurance limit σ_{-1}/τ at low static tangential stresses (τ_c), while the
endurance limit decreases at high static tangential stresses. A small decrease
of σ_{-1}/τ was observed for 45 grade steel, while the decrease of σ_{-1}/τ was

Card 1/2

SHCHEGLOV, N.N., kand.tekhn.nauk

Endurance limit and plastic deformations of steel subjected to
combined bending and torsion. Rasch.na prochn. no.7:361-374
'61. (MIRA 14:11)

(Steel--Testing)

S/122/61/000/004/001/007
D211/D303

AUTHOR: Shcheglov, M.M., Candidate of Technical Sciences
TITLE: Strength and plasticity of steels under simultaneous
bending and torsion at variable stresses

PERIODICAL: Vestnik mashinostroyeniya, ⁴¹no. 4, 1961, 27-30

TEXT: The author presents the results of a series of experiments carried out on discs made of steels 10-45 and 40X (40kh) under the following conditions of loading: a) Constant torsion plus variable bending and b) constant bending plus variable torsion. Following conclusions are drawn: 1) Plastic deformation always took place only in the direction of the constant stress, i.e. in case a) Plastic deformation occurred in the form of twisting and in case b) owing to plastic deformations, the specimens were permanently bend. 2) Plastic deformation of the samples increased with the number of the cycles of loading. Between 1 and 3 million cycles the rate of plastic deformation fell rapidly or ceased altogether. Plastic deformation

Card 1/2

L 22980-66

ACC NR: AP6008554

SOURCE CODE: UR/0166/66/000/001/0088/0089

AUTHOR: Shul'gin, P.I.; Kallistov, A.P.; Tonkikh, V.K.; Shcheglov, N.V.

ORG: Physics Technical Institute, AN UzSSR (Fiziko-tehnicheskiy institut AN UzSSR)

TITLE: A photoelectric semiconductor water turbidity analyzer

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 1, 1966, 88-89

TOPIC TAGS: semiconductor device, turbidimeter, photoelectric effect, measuring instrument

ABSTRACT: This article describes a field photoelectric device by means of which it is possible to determine the turbidity of water in 1.5-2 min with an accuracy of at least 2-3%. The device was patented under Registration Certificate No. 36269, April 22, 1963. Silicon photocells manufactured in FTI AN UzSSR (Knigin, P.I., Dubrovskiy, L.A. "Izv. AN UzSSR," seriya fiz.-mat. nauk, 1962, no. 3) were used as sensors. The device also incorporates P-13 semiconductor triodes, a potentiometer, and resistors. The analyzer was tested in laboratory and field conditions. The laboratory tests showed that the calibrated curves fully represent the turbidity of the water. The field experiments were conducted at the hydrostations of Ak-Dzhar, Kyzyl-Kishlak (Syrdar'ya River), and Card 1/2

EC 1, 1, 1.

"The Specific Catalytic Activity of Transition Metals in Relation to the
Synthesis and Decomposition Reactions of Ammonia." *Chem. Sci., Moscow Order of
Lenin Chemical-technological Institute D. I. Mendeleev, 29 Dec 54. (V, 21 Dec 54*

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (12)
No. Sum. No. 556, 24 Jun 55

1.1. Исследования каталитической активности перекисных катализаторов в окислении
метанола метаном, проведенные в лаборатории, 1974, т. 1. 2-й выпуск.
Составитель: Л. И. Гусева. Редактор: Л. И. Гусева. Издатель: И. И. Гусева.
1974, 1-й выпуск.

Составитель: Л. И. Гусева, т. 1, 1974

ACC NR: AR7000949

SOURCE CODE: UR/0275/66/000/011/A022/A022

AUTHOR: Zvereva, F. G.; Shcheglov, O. S.

TITLE: Effect of anode shape on high-frequency plasma oscillation

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 11A156

REF SOURCE: Uch. zap. Kuybyshevsk. gos. ped. in-t, vyp. 49, ch. 1, 1965, 220-227

TOPIC TAGS: plasma oscillation, anode, plasma oscillation intensity, anode design

ABSTRACT: Experimental data are presented on the study of high-frequency oscillations in a mercury-vapor plasma at pressures of the order of 10^{-4} — 10^{-3} mm Hg. It is shown that during the passage of an unmodulated electron beam through the plasma, longitudinal electric waves with a frequency close to Langmuir's are excited in it. The relationship between plasma-oscillation intensity and voltage are obtained for various anode shapes (disc, cone, and rod). [Translation of abstract] [NT]

SUB CODE: 09, 20/

Cards 1/1

UDC: 537.525

L 18964-65 EWT(d)/EWT(1)/EPA(s)-2/EEC(k)-2/EEC-l/EEC(t)/EEC(b)-2/EWA(h) Po-h/
Pq-h/Pg-h/Pt-10/rh-l/Pl-h/Pe-h IJP(c)/SSD/AFETR/RAEM(a)/AS(mp)-2/AFWL/ASD(a)-5/
AEDC(b)/RAEM(c)/ESD(gs)/ESD(t)
ACCESSION NR: AR5000811 S/0058/64/000/010/H033/H033

SOURCE: Ref. zh. Fizika. Abs. 10Zh229

AUTHORS: Koshkin, L. I.; Kurushin, Ye. P.; Shcheglov, O. S.;
Nedovesov, V. N.

TITLE: Contribution to the calculation and investigation of electromagnetic fields in waveguides with ferroelectric inserts

CITED SOURCE: Uch. zap. Kuybyshevsk. gos. ped. in-t., vyp. 42,
1964, 75-80

TOPIC TAGS: ferroelectric, ferrite insert, waveguide measurement, electromagnetic field, electric loss

TRANSLATION: An experimental method is proposed for finding the field configuration in waveguides with ferrite inserts of arbitrary form. It consists of introducing into the waveguide a probe with

Card 1/2

L 18964-65

ACCESSION NR: AR5000811

appreciable losses. Motion of the probe causes the transfer coefficient of the waveguide to vary in proportion to the square of the tangential component of the field at the location of the probe. Results of tests of this method in waveguide with known field distribution are presented, and it is noted that the accuracy of the method is high. A diagram is proposed of an installation for exact measurement of low losses. G. Postnov.

SUB CODE: EC, EM

ENCL: 00

Card 2/2

SHCHEGLCV, P., inzh.

Drain piping for methane removal. Bezop.truda v prom. 3 no.8:35
Ag '59. (MIRA 12:11)

(Mine gases)

SHCHEGLOV, P., uchitel' khimii (g.Sverdlovsk)

Spontaneous combustion of oils. Khim.v shkole 14 no.3:93
MyaJa '59. (MIRA 12:9)

(Combustion, Spontaneous)

"... of complications in spinal fractures," Khirurgiya, No. 4, 1946. 100.
Inst., Institute of Orthopedy, -cl942-.

SHCHEGLOV, P. I.

USSR/ Engineering - Machinery

Card 1/1 Pub 128 - 28/35

Authors : Shcheglov, P. I.

Title : Cutting conical thread

Periodical : Vest. mash. 35/3, page 84, Mar 1955

Abstract : An explanation is given of a method by which a device which was designed for cutting thread on objects in the form of a cylinder can be adapted for cutting on objects that are somewhat tapered, such as the end of a pipe to be inserted. Illustration; drawing.

Institution :

Submitted :

SHCHEGLOV, P.P.

Use of syntan "Anthracene K" P. P. Shcheglov and
 I. E. Vaisberg. *Antikorne (Duramyl) From S. N. S. R.*
 15, No. 9, 43 (1961). Hides treated with "Anthracene
 K" yield a leather exactly similar to that made with veg-
 table tans. The process is described. A. A. Podgorny

ASH 55A METALLURGICAL LITERATURE CLASSIFICATION

SHCHEGLOV, P.P., uchitel'

Explosibility of the vapors of combustible materials. Khim. v
shkole 15 no.1:67-69 Ja-F '60. (MIRA 13:5)

1. Pozharnoye tekhnicheskoye uchilishche Sverdlovskaya.
(Explosions--Study and teaching)

SHCHEGLOV, P P., преподаватель специальной химии

Bromium derivatives of carbohydrates as means for fire
extinction. Khim. v shkole 17 no.1:89 Ja. F '62. (MIRA 15:1)

1. Sverdlovskoye pozharно-tekhnicheskoye uchilishche.
(Bromo-derivatives (Organic chemistry))
(Fire extension-Chemical systems)

DIBAY, E.A.; SHCHEGLOV, P.V.

~~CONFIDENTIAL~~
Fifth conference on cosmogony devoted to radio astronomy.
Astron. tsir. no. 158:26-27 Ap '55. (MIRA 8:9)
(Radio astronomy)

ORCHENKOV, P. V. Cand Phys-Math Sci -- (diss) "Photometric study of certain astronomical objects in the ^{range} ~~area~~ of 8000-12000-Å wave-lengths." Mos, 1957.
7 pp (Mos Order of Lenin and Order of Labor Red Banner State Univ im M. V. Lomonosov. State Astronomical Inst im P.K. Shternberg), 100 copies
(KL, 3-58, 95)

33-3-24/32

AUTHOR: Shcheglov, P.V.

TITLE: The photography of stars with an image converter tube
(Fotografirovaniye zvezd pri pomoshchi elektronno-opticheskogo preobrazovatelya)

PERIODICAL: "Astronomicheskii Zhurnal" (Journal of Astronomy),
1957, Vol.34, No.3, p.487 (U.S.S.R.)

ABSTRACT: Observations of the galactic cluster M39 (NGC 7092,
 α (1950.0) = $21^{\text{h}}30^{\text{m}}48^{\text{s}}$ (1950.0) = $\pm 48^{\circ}13'$) made with an image
converter tube and presented at the Dublin meeting are
described.

ASSOCIATION: State Astronomical Institute im. P.K. Shternberg.
(Gos. Astronomicheskii Institut im. P.K.Shternberg)

SUBMITTED: December 11, 1956.

AVAILABLE: Library of Congress

Card 1/1

33-4-18/19

AUTHOR: Shcheglov, P. V.

TITLE: Spectrum of the Cancer nebula. (Spektr krabovidnoy tumannosti.)

PERIODICAL: Astronomicheskiy Zhurnal, 1957, Vol.34, No.4, pp.675-677 (USSR)

ABSTRACT: The radiation emitted by the Cancer nebula in both radio and optical regions is due to radiation of relativistic electrons in weak magnetic fields (Shklovskii Ref.1).

The distribution of energy in the spectrum of the radiation emitted by relativistic electrons is connected with their differential energy spectrum. If the latter is described by

$$N(E) = k E^{-\gamma}$$

then the radiation spectrum is given by

$$I_{\nu} \sim \nu^{(1-\gamma)/2}$$

(Shklovskii Ref.2) Thus the spectrum of the Cancer nebula may be used to deduce the spectrum of the radiating relativistic electrons.

Card 1/3

Spectrum of the Cancer nebula.

33-4-18/19

AVAILABLE: Library of Congress

Card 3/3

SHCHEGLOV, P.V.

Distribution of the infrared brightness in the central region of
nebula M31. Astron. tsir. no.180:18-20 My '57.
(MIRA 13:4)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.
(Nebulae)

25-1-9/48

AUTHORS: Kurt, V.G., and Sncheglov, P.V., Scientific Workers of the
State Astronomical Institute imeni P.K. Shternberg

TITLE: Electronics in Astronomy (Elektronika v astronomii)

PERIODICAL: Nauka i Zhizn', 1958, #1, pp 25-28 (USSR)

ABSTRACT:

The application of electronics in astronomy makes it possible to carry out observations with strict accuracy. A new branch of science came into existence - radio-astronomy - which deals with the radio radiation of the sun, of clouds of inter-stellar gas, and of remote stellar systems, galaxies, etc. A number of new devices have been designed for this purpose. Photometric recording of light intensity, for instance, is possible with a measuring device linked to the series connection of a photoelement; this is at the same time the simplest stellar electrophotometer.

The first principles advanced for achieving an intensification of the photocurrent of the photoelectric cell, suggested by Soviet scientist L.A. Kubetskiy in 1950, are based on making use of secondary electronic amplification. The discovery of a photoamplifier made it possible to apply

Card 1, 4

Electronics in Astronomy

25-1-9/48

now carrying out experiments in this field, under the direction of V.B. Nikonov.

Recently, new devices have been designed, the so-called "automatic guides", where the application of electrons ensures direct guiding of the telescope, without any deflection, onto the star to be investigated. Such a photoelectric guide for a solar telescope was constructed by E.Ye. Dubov of the Crimean Astrophysical Observatory, and proved to be very effective, the sun deflection being much smaller than in the case of manually operated guidances.

The photocell is another electronic device applied in astronomy. It is sensitive to infra-red rays with a wave length of up to 3.5 microns.

The electronic optical converter (ЭОП) - another photoelectric device - is of very simple design. The photocathode may be either antimonial-cesium or oxygen-cesium. The sensitivity of the ЭОП is 10 times greater in the visible part of the spectrum than that of a photo-plate, and in the infra-red section this sensitivity is 100 times greater. Since infra-red rays easily pass through dense cosmic dust, Soviet scientists V.I. Krasovskiy, V.B. Nikonov and A.A. Kalinyak succeeded in examining the center of our

Card 3/4

53-64-3-1/8

AUTHORS: Shklovskiy, I. S., Shcheglov, P. V.
TITLE: The Optical Observation of Artificial Earth-Satellites
(Opticheskiye nablyudeniya iskusstvennykh sputnikov Zemli)
PERIODICAL: Uspekhi Fizicheskikh Nauk, 1958, Vol. 64, Nr 3, pp. 417-427
(USSR)

ABSTRACT: The spatial coordinates of such satellites for various times are determined by means of radiotechnical and optical methods. This work is dealing with the optical methods, which enable to determine the coordinates of satellites more exactly, on principle, than do radiotechnical methods. The authors explicitly point out the importance of the exact position-finding of satellites. Above all, the analysis of the motion of satellites is important for the investigation of the shape of the earth. When the satellite is observed with an accuracy of 5", the coordinates of the observation place can be determined with an accuracy of several meters. An exact determination of the coordinates of satellites is first of all important for geodetic and geophysical problems of geo-

Card 1/3

The Optical Observation of Artificial Earth-Satellites

53-64-3-1/8

physics. This, however, ^{is} just one field of application for the exact coordinate determination. There is an interesting possibility for considerably increasing the brightness of satellites at dawn. It is the emergence of an "additional satellite" from the "main satellite". The additional satellite consists of a balloon of a thin aluminum-coated cover. At present such a balloon is realized which weighs 300 g. the apparatus for the gas filling included. But also bigger balloons of relatively light weight can be produced. Such a balloon has, however, because of its great braking effect, no substantial scientific value. The coordinates of the satellite can be determined by simultaneously photographing the satellite and the surrounding stars. The authors investigate the demands made on a system used for photographing satellites. Such a camera must take a fixed star of the 6th order within $1/300$ of a second. By means of the analysis of the photographic picture an accuracy of $\pm 1,5-2$ seconds of arc can be obtained. The use of photoplates is to be preferred in the photographic investigation. Until November 1957, no data of the use of such cameras

Card 2/3

The Optical Observation of Artificial Earth-Satellites

53-64-3-1/8

for the observation of the Soviet satellites were at hand. In the Soviet Union 66 stations for the visual observation of satellites were built. An apparatus was constructed on the basis of the standard air-camera NAFA -3c/25 in the Astro-nomical Institute imeni Shternberga (Gosudarstvennyy astro-nomicheskiy institut im. Shternberga) for the observation of brighter satellites. After this another apparatus is described. The authors point out the possible use of electron-optical transformers, since they are much more sensitive than photo-plates, have, however, also disadvantages. The production of satellites of polyhedral shape would be an advantage, as the plane surfaces of this polyhedron act as plane mirrors. Finally the authors report on the observation of the satellites which became red-hot when entering the earth's atmosphere. There are 4 figures, 1 table, and 10 references, 2 of which are Soviet.

Card 3/3

1. Satellite vehicles--Motion 2. Satellite vehicles--Reflective effects 3. Satellite vehicles--Performance

13

3(1)

SOV/33-35-4-15/25

AUTHOR: Shcheglov, P.V.

TITLE: Some Methodical Problems in Applying Image Converters (Nekotoryye metodicheskiye voprosy primeneniya elektronno-opticheskikh preobrazovateley v astronomii)

PERIODICAL: Astronomicheskii zhurnal, 1958, Vol 35, Nr 4, pp 651-655 (USSR)

ABSTRACT: The present paper contains the experiences which have been gathered in 1954-1957 in the Section of Radio Astronomy of the State Astronomical Institute imeni P.K. Shternberg in applying image converters. Especially the use of these instruments in photometric and spectroscopic investigations in the infrared domain is explicitly discussed. The gathered experiences do not exceed those already well-known for several years in the western countries (see [Ref 1,2]).

Card 1/2

Some Methodical Problems in Applying Image
Converters

SOV/33-35-4-15/25

There are 4 figures, and 6 references, 3 of which are Soviet,
2 German, and 1 American.

ASSOCIATION: Gos. astronomicheskii in-t im. P.K. Shternberga (State Astro-
nomical Institute imeni P.K. Shternberg)

SUBMITTED: May 15, 1957

Card 2/2

SACHEGLOW P. V.

50V/3405

Soveshchaniye po voprosam kosmologii. 6th, Moscow, 1957

Vneimlakticheskaya astronomiya i kosmologiya; trudy vneimlantskoy (Extragalactic Astronomy and Cosmology; Transactions of the Other Conference on Problems of Cosmogony, June 5-7, 1957) Moscow, 1958. 199 p. 273 p. Krata aliq inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR.

Ed. of Publishing House: L.V. Samsonenko; **Tech. Ed.:** G.N. Shevchenko; **Editorial Board:** D.A. Frank-Kamenetskiy (Resp. Ed.) Professor; **B.A. Vorontsov-Vel'yaminov, Corresponding-Member.**

PURPOSE: The book is intended for astronomers and physicists studying problems of general cosmology.

COVERAGE: The book is a collection of papers on cosmology read by scientists participating in a conference held in Moscow on June 29, 1975. It reviews recent observational and theoretical work in extragalactic astronomy, gravitational theory, theory of relativistic red shift, radio astronomy, formation of chemical elements, thermodynamics of the universes, entropy, etc. No personalities are mentioned. There are references following most of the reports.

Mikheyan, B. Ye. Spiral Galaxy M 101

Lartynov, D. Ya. Reliability of Observational Data in Extra-Galactic Astronomy

Travosvskiy, V. I. and P. V. Shcherbov. Application of Electronic-Optical Methods to Extragalactic Astronomy. 83

1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046
2047
2048
2049
2050
2051
2052
2053
2054
2055
2056
2057
2058
2059
2060
2061
2062
2063
2064
2065
2066
2067
2068
2069
2070
2071
2072
2073
2074
2075
2076
2077
2078
2079
2080
2081
2082
2083
2084
2085
2086
2087
2088
2089
2090
2091
2092
2093
2094
2095
2096
2097
2098
2099
2100
2101
2102
2103
2104
2105
2106
2107
2108
2109
2110
2111
2112
2113
2114
2115
2116
2117
2118
2119
2120
2121
2122
2123
2124
2125
2126
2127
2128
2129
2130
2131
2132
2133
2134
2135
2136
2137
2138
2139
2140
2141
2142
2143
2144
2145
2146
2147
2148
2149
2150
2151
2152
2153
2154
2155
2156
2157
2158
2159
2160
2161
2162
2163
2164
2165
2166
2167
2168
2169
2170
2171
2172
2173
2174
2175
2176
2177
2178
2179
2180
2181
2182
2183
2184
2185
2186
2187
2188
2189
2190
2191
2192
2193
2194
2195
2196
2197
2198
2199
2200
2201
2202
2203
2204
2205
2206
2207
2208
2209
2210
2211
2212
2213
2214
2215
2216
2217
2218
2219
2220
2221
2222
2223
2224
2225
2226
2227
2228
2229
2230
2231
2232
2233
2234
2235
2236
2237
2238
2239
2240
2241
2242
2243
2244
2245
2246
2247
2248
2249
2250
2251
2252
2253
2254
2255
2256
2257
2258
2259
2260
2261
2262
2263
2264
2265
2266
2267
2268
2269
2270
2271
2272
2273
2274
2275
2276
2277
2278
2279
2280
2281
2282
2283
2284
2285
2286
2287
2288
2289
2290
2291
2292
2293
2294
2295
2296
2297
2298
2299
2300
2301
2302
2303
2304
2305
2306
2307
2308
2309
2310
2311
2312
2313
2314
2315
2316
2317
2318
2319
2320
2321
2322
2323
2324
2325
2326
2327
2328
2329
2330
2331
2332
2333
2334
2335
2336
2337
2338
2339
2340
2341
2342
2343
2344
2345
2346
2347
2348
2349
2350
2351
2352
2353
2354
2355
2356
2357
2358
2359
2360
2361
2362
2363
2364
2365
2366
2367
2368
2369
2370
2371
2372
2373
2374
2375
2376
2377
2378
2379
2380
2381
2382
2383
2384
2385
2386
2387
2388
2389
2390
2391
2392
2393
2394
2395
2396
2397
2398
2399
2400
2401
2402
2403
2404
2405
2406
2407
2408
2409
2410
2411
2412
2413
2414
2415
2416
2417
2418
2419
2420
2421
2422
2423
2424
2425
2426
2427
2428
2429
2430
2431
2432
2433
2434
2435
2436
2437
2438
2439
2440
2441
2442
2443
2444
2445
2446
2447
2448
2449
2450
2451
2452
2453
2454
2455
2456
2457
2458
2459
2460
2461
2462
2463
2464
2465
2466
2467
2468
2469
2470
2471
2472
2473
2474
2475
2476
2477
2478
2479
2480
2481
2482
2483
2484
2485
2486
2487
2488
2489
2490
2491
2492
2493
2494
2495
2496
2497
2498
2499
2500
2501
2502
2503
2504
2505
2506
2507
2508
2509
2510
2511
2512
2513
2514
2515
2516
2517
2518
2519
2520
2521
2522
2523
2524
2525
2526
2527
2528
2529
2530
2531
2532
2533
2534
2535
2536
2537
2538
2539
2540
2541
2542
2543
2544
2545
2546
2547
2548
2549
2550
2551
2552
2553
2554
2555
2556
2557
2558
2559
2560
2561
2562
2563
2564
2565
2566
2567
2568
2569
2570
2571
2572
2573
2574
2575
2576
2577
2578
2579
2580
2581
2582
2583
2584
2585
2586
2587
2588
2589
2590
2591
2592
2593
2594
2595
2596
2597
2598
2599
2600
2601
2602
2603
2604
2605
2606
2607
2608
2609
2610
2611
2612
2613
2614
2615
2616
2617
2618
2619
2620
2621
2622
2623
2624
2625
2626
2627
2628
2629
2630
2631
2632
2633
2634
2635
2636
2637
2638
2639
2640
2641
2642
2643
2644
2645
2646
2647
2648
2649
2650
2651
2652
26

Linzbürg-V.L. Experimental Verification of the General Theory of Relativity (Summary of Report) 117

VLASOV, A.A. Spatial, Non-homogeneous Distributions of the System of Gravitating Particles 115

System of Attracting
Sporodinsky, A.Ya. Isotropic Models of the Universe
Stability in the General Theory
131

141

of Relativity (Summary of Report)

Gravitational Theory of an Anisotropic Non-

Zel'dovich, A. M. Homogeneous Universe. Theory of Red Shift in Spectra of Distant Galaxies. M. P. Shustakov. 171

Radio Astronomy and Cosmology (Summary of Report)

Cherdyn'tsev, V.V. Conditions of Formation of Atomic Nuclei according to Data on Their Distribution

Frank-Kamenetskiy, D.A. — Origin of Chemical Elements from the

Point of View of the Theory of Internal Structure and Actual Evolution

Idlis, G.M. Structural Instability of the Universe and the dynamics of Gravitating Systems

Metagalaxy as a Typical Populated Cosmos System (Summary of Report)

Plotkin, I.R. Some Remarks on the Growth of Entropy

Starukovich, K.P. On the Thermodynamics of the Universe.

SECRET

PLANE I BOOK EXPLANATION

Тема: астрономия-космонавтика-астрономия

507/3051

Астрономический календарь 1960 (Astronomical Calendar, 1960) Moscow, Fizmatgiz, 1960. 351 p. (Series: 1st Year; unit percentages chart). 7,000 copies printed.

Ed.: I. Ye. Zakharov; Gen. Ed.: S. M. Zhurav; Editorial Board: P. I. Baskin (resp. Ed.), M. M. Gerasimov, G. G. Kulagin, A. G. Maslov, P. P. Pavlov.

PURPOSE: The book is intended for astronomers and geophysicists and physicists interested in astronomical phenomena.

CONTENTS: This yearbook on astronomy was compiled by a number of Soviet scientists specializing in several different branches of astronomy. The following persons participated in the work: G. G. Kulagin, who wrote the chapters on ephemerides of the Sun and Moon, M. M. Gerasimov, who wrote the chapters on planets, eclipses, physical coordinates of the Sun, Moon, Mars, and Jupiter, and the satellites of Jupiter and Saturn, V. I. Zhurav, who wrote the chapters on ephemerides and heliocentric longitudes of planets (e.g., Venus), the chapters on ephemerides of stars and planets by the Moscow Observations of Planets and ephemerides of stars, sections on minor planets, the chapters on ephemerides of stars, sections on minor planets, and the chapters on ephemerides of stars and events in astronomy such as the launching of the first Soviet satellite, the 1959 Congress of the International Astronomical Association held in Moscow, the 1959 Congress of the International Astronomical Association held in Moscow, the 1959 Congress of the International Astronomical Association held in Moscow, the 1959 Congress of the International Astronomical Association held in Moscow. There are 365 references, all Soviet.

Frank-Kamenetsky, D. A. Discussion on the Origin of Elements

Leykin, O. A. Symposium on the Hesperung-Russel Diagram

Shchedlov, P. V. Electron Telescopes

Brunakhtin, V. A. The Fifth Assembly of the Special Committee on the International Geophysical Year

Maslov, A. G. Visit to Observatories in the United States

Semakin, N. K. The People's Observatory of the Planet (and the Moon)

Sakharovsky, L. I. "Eternal" Calendar with Table of Lunar Phases

Perel', Yu. G. 350th Anniversary of Galileo's Discoveries with the Telescope

Perel', Yu. G. Anniversaries in Soviet and World Astronomy in 1960

Bibliography (compiled by Yu. G. Perel')

AVAILABLE: Library of Congress

217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

7

SHCHEGLOV, P.: SHLOVSKII, I.

"Optical observations of artificial earth satellites"

Pokroky Matematiky, Fysiky a Astronomie. Praha, Czechoslovakia. Vol. 4, no. 1, 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

66729

~~23(3)~~ 3.1230

SOV/20-129-2-14/66

AUTHORS: Volkov, I. V., Yesipov, V. F., Shcheglov, P. V.

TITLE: The Use of the Contact Photography Principle in Studying Weak Light Fluxes

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 2, pp 288-289 (USSR)

ABSTRACT: The solution of some astronomical and geophysical problems makes it necessary to investigate the spectra of objects with low light intensity. One of the methods for intensifying the images is the use of electron-optical transformers. When using the conventional electron-optical transformers the image is projected by means of an optical system from the screen of the device to the photoemulsion. In this case, however, also objects with highest light intensity collect at maximum only 10% of the light emitted by the screen. To fully utilize the light, the photoemulsion must be brought into optical contact with the fluorescing screen of the transformer. In order to maintain the high resolving power of the device, the distance between screen and emulsion must be very small. V. I. Krasovskiy (Ref 4) was the first to use electron-optical transformers for contact photography. In 1958 a perfect device for contact photography of weakly luminous objects,

Card 1/3

66729

The Use of the Contact Photography Principle in
Studying Weak Light Fluxes

SOV/20-129-2-14/66

the photo contact tube, was developed. It consists of a vacuum balloon into which a semi-transparent photocathode, an electron-optical device and a fluorescing screen are mounted. The latter was applied to a 20 to 30 μ thick mica plate (forming the back wall of the device). The photoemulsion is pressed to this plate. The vacuum in the device is maintained for a long period. To produce an optical contact between the photoemulsion and the mica plate (to which the screen is attached) an immersion medium with a refractive index close to that of mica is used. The photoemulsion applied to an elastic base (cinematographic film) was mechanically pressed to the screen. The photo contact tube with an oxygen-caesium photocathode was used for photographing the spectra of the night sky luminescence in the spectral range 0.8 - 1.2 μ . In this connection a spectrograph of the type SP-50 was used which was directed at an angle of 30° to the northern horizon. The photographs were taken on a DN film. Exposure was 4 hours and not even traces of a cold emission were found in this case. One illustration shows the spectra of the night sky luminescence in the range 0.9 and 1.0 μ . A comparison of the

Card 2/3

66729

SOV/20-129-2-14/66

The Use of the Contact Photography Principle in
Studying Weak Light Fluxes

spectra of the night sky which were taken by means of a photo contact tube and a conventional electron-optical transformer with projecting optical systems showed that contact photography has a sensitivity by ten times higher. The resolving power of the photo contact tube is approximately 20 grades per millimeter. Photo contact tubes with a 10 mm long screen may be produced. Such a screen size is sufficient for a number of spectroscopical investigations. There are 1 figure and 5 references, 3 of which are Soviet.

ASSOCIATION: Gosudarstvennyy astronomicheskiy institut im. P. K. Shternberga
(State Astronomical Institute imeni P. K. Shternberg) ✓

PRESENTED: July 13, 1959, by A. I. Berg, Academician

SUBMITTED: July 6, 1959

Card 3/3

23698

S/13/61/508/114/028/018
AAG1/AIG1

3,1510

AUTHORS: Gershteyn, R.Ye., Pronik, V.I., Snegirev, F.V.

TITLE: Photographing diffuse nebulae in infrared rays

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fiziko-Matematicheskie Nauki, No. 4, 1961, 30, at-
street 44321 ("Fiz. Matem. Astron. observ.", 1960, v. 22, 150-
151, Engl. summary)

TEXT: The authors report on the results of photographing bright gaseous ne-
bulae NGC 6011, 6618 and 6619 in infrared region by means of an electronic-optical
converter mounted on a high-speed camera with $D=640$ mm, $D/F=1:1.4$. It was suppos-
ed to detect emission in region $\lambda 1.9000-6.40$. The region was singled out by a
filter absorbing light with $\lambda < 8000$ and by the long wavelength sensitivity border
of the equipment. A 30-40 (23-27) additional filter permitted the solution of the
problem about the nature of emission, i.e. emission [S III] or continuum, because
by narrowing the pass band by 2.5 times the filter did not practically change
the emission of emission at $\lambda 1.9000$. No emission from the nebula NGC 6611 was

Page 1/2

23698

Photographing diffuse nebulae in infrared rays

3/23/61 / 11-1022/106
AFCI/AFCI

detected, and in the nebula NGC 6052 only the brightest part of the nebula was
retained. Apparently the lens hood used for taking the photograph was too wide.
The nebula NGC 6052 is well visible in infrared rays. There are 8 references.

V. Veselov

[Abstracter's note: Complete a translation]

Card 2/2

81849

S/033/60/037/03/022/027
E032/E514

3.1230

AUTHOR: Shcheglov, P. V.

TITLE: Experiments in the Photography of Nebulae Using an
Image Converting Telescope

PERIODICAL: Astronomicheskii zhurnal, 1960, Vol 37, Nr 3,
pp 586-589 + 1 plate

ABSTRACT: It is well known that it is difficult to photograph weak emission nebulae against the background of the night sky. The background can be reduced with the aid of interference filters but these can only be used in convergent light and this leads to a deterioration in their resolution. The most detailed review of weak nebulae carried out by Shayn (Ref 1) involved the use of a glass filter in conjunction with a photographic emulsion; the spectral width being 240 \AA . However, the background is still the limiting factor and the exposures cannot exceed 2 hours with a focal ratio of 1:1.4. Another possible method is to use multi-layer dielectric filters and photographic Card 1/3 recording in which case the background ceases to be the

... on the image converter photograph, No

00513R00154873001

81849

S/033/60/037/03/022/027
EO32/E514

Experiments in the Photography of Nebulae Using an Image Converting Telescope

traces of the background sky can be seen. It is concluded that good contrast photographs of weak emission objects inaccessible by direct photography can be obtained by using narrow band light filters in conjunction with image converting telescopes. Acknowledgment is made to the Department of Physics of Nebulae of the Crimean Astrophysical Observatory and to V. F. Yesipov for help in the experiments. There are 2 figures and 3 references, 2 of which are Soviet and 1 English.

ASSOCIATION: Gos. astronomicheskiy in-t imeni P. K. Shternberga
(State Astronomical Institute imeni P. K. Shternberg)

SUBMITTED: January 7, 1960

Card 3/3

✓

SHCHEGLOV, P.V.; YESPOV, V.F.

Diameter of the pupil in the adapted eye. Priroda 49 no.9:108 S
'60. (MIRA 13:10)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.
(Pupil (Eye))

SHCHEGLOV, P. V. ---

Filament field corrector for optical and electronic-optical
instruments. Soob. GAISH no.117:24-26 '61. (MIRA 15:10)

(Optical instruments)
(Electronic instruments)

YESIPOV, V.F.; SHCHEGLOV, P.V.

Spectrum of the Orion Nebula in the region 9,000 - 11,000 Å.
Astron.zhur. 38 no.3:554 My-Je '61. (MIRA 14:6)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga.
(Nebulae—Spectra)

SHCHEGLOV, P.V.

"Vistas." Astron.zhur. 38 no.3:567-568 My-Je '61. (MIRA 14:6)
(Astronomy)

9.4170 (2801,3005)

21491

S/020/61/137/004/015/031
B104/3206

3.1510 (1062,1166 ONLY)

AUTHORS: Volkov, I. V., Yesipov, V. F., and Shcheglov, P. V.

TITLE: Contact image-amplifier for the red spectral range

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 4, 1961, 840

TEXT: As known, the production of image amplifiers in the red spectral range is difficult owing to the low sensitivity of the classical photocathodes in this range. In 1959-1960 the authors made experiments with bismuth-cesium- and multi-alkali photocathodes. Characteristic for the multi-alkali photocathodes is their relatively far red boundary for very low dark currents. The red boundary of the bismuth-cesium cathode lies nearer, but its thermionic emission is stronger. The reproducibility of photocathodes gets more complicated through the necessary more accurate dosage of the alkaline metals than for photoelectric cells. For the determination of the sensitivity increase achieved by such a device, a gaseous nebula (H α with 6563 A) was photographed by it. The objective had a speed of 1:1.5 and a dielectric light filter was used for the H α -line ($\Delta\lambda = 40$ A, T = 60 %). For comparison, the same photo was taken with the

Card 1/2

21491

S/020/61/137/004/015/031
B104/0206

Contact image-amplifier for the...

identical photographic arrangement and a Kodak 103 all panchromatic emulsion. Both photos of the NGC 7000 nebula are shown (not reproducible). An evaluation of the qualities shows that the sensitivity of the electronic telescope installation is 50 times higher than the normal photoinstallation. The gain in sensitivity is lower in the green spectral range. This is explained by the greater sensitivity of the nonsensitized photoemulsion as compared with the panchromatic emulsion. There are 2 figures and 4 Soviet-bloc references.

ASSOCIATION: Gosudarstvennyy astronomicheskiy institut im. P. K. Shternberga
(State Astronomical Institute imeni P. K. Shternberg)

PRESENTED: November 19, 1960, by A. I. Berg, Academician

SUBMITTED: November 4, 1960

Card 2/2